100

ID	Orders	
	Qty	Item
xyz	1	Computer
	1	Monitor
	Qty	Item
abc	2	Scanner
	1	Power Supply

FIG. 1

```
CUSTOMERS:[
    {ID="xyz"
    ORDERS=[
        { = 1
        ITEM="computer"}
        {POS=2
        ITEM="monitor"}]
    }
    {ID="abc"
    ORDERS=[
        {POS=1
        ITEM="scanner"}
        {POS=2
        ITEM="power supply}]
    }]
```

210

220

FIG. 2

CUSTOMERS:{
  ID["xyz","abc"] } 310
  ORDERS:{
    QTY:[[1,2],[1,2]]
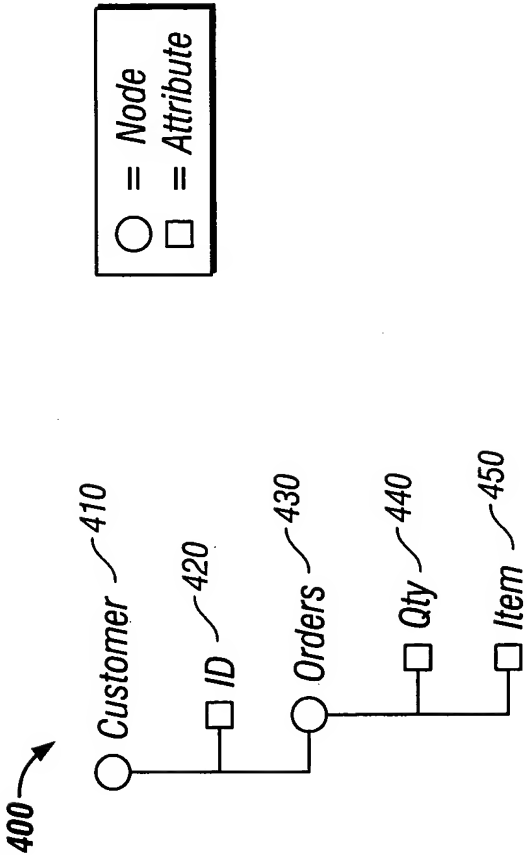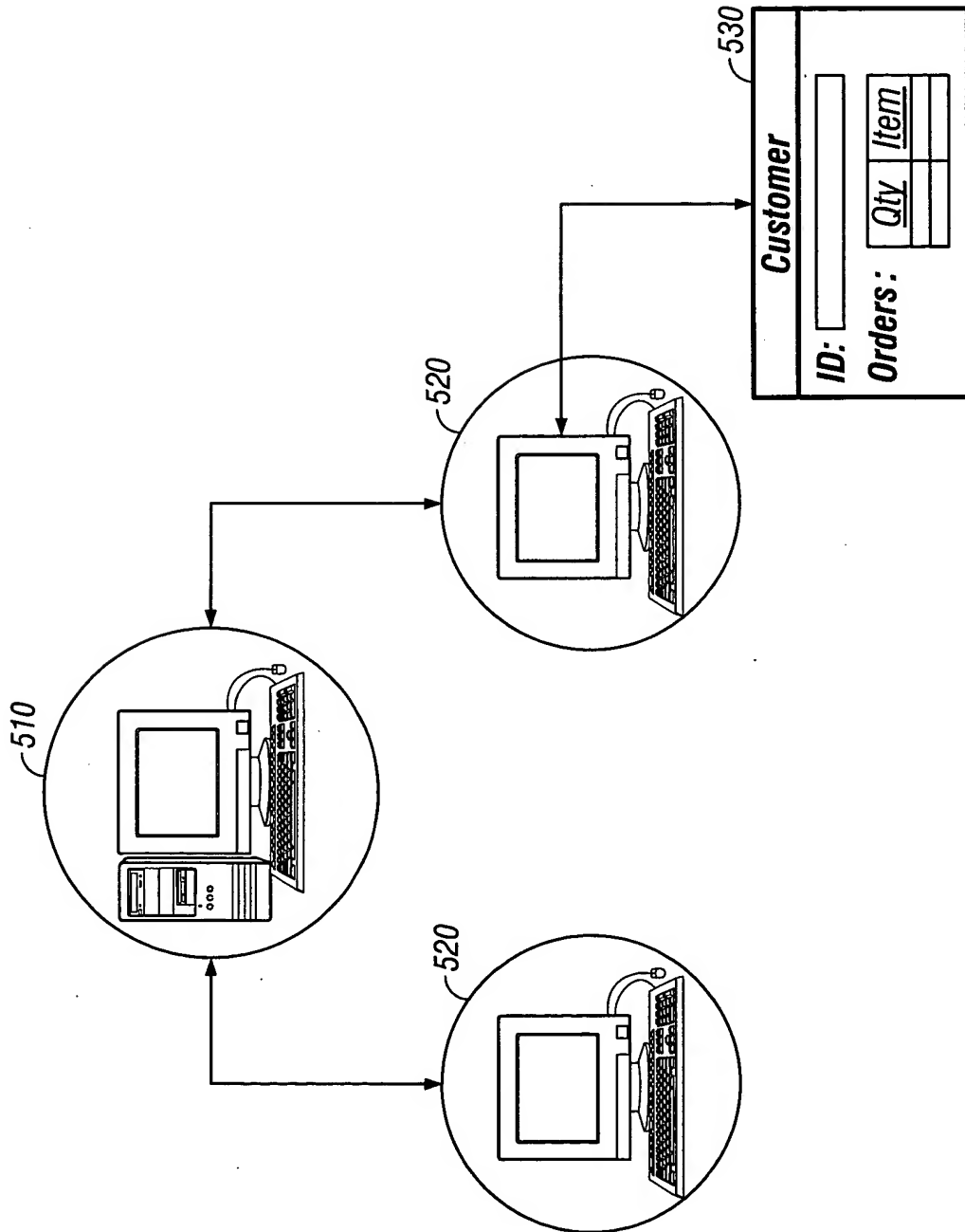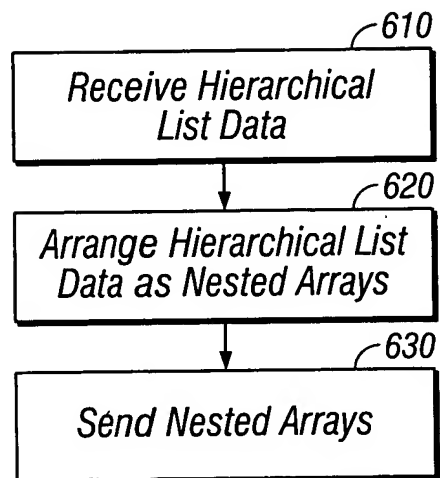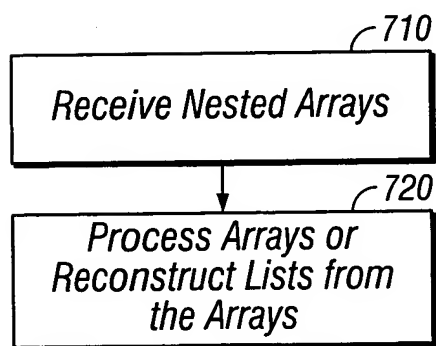   ITEM:[["computer","monitor"],["scanner","power supply"]]} } 320
}

FIG. 3

```
┌─────────────────┐
│ ◯  = Node       │
│ □  = Attribute  │
└─────────────────┘
```

400 →

◯ Customer ⌒ 410
  □ ID ⌒ 420
◯ Orders ⌒ 430
  □ Qty ⌒ 440
  □ Item ⌒ 450

FIG. 4

FIG. 5

REPRESENTING HIERARCHICAL LIST DATA
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┌─────────────────────────────┐ ⌐610
│   *Receive Hierarchical*   │
│   *List Data*   │
└─────────────────────────────┘
              ↓   ⌐620
┌─────────────────────────────┐
│ *Arrange Hierarchical List* │
│ *Data as Nested Arrays*   │
└─────────────────────────────┘
              ↓   ⌐630
┌─────────────────────────────┐
│   *Send Nested Arrays*   │
│   │
└─────────────────────────────┘

FIG. 6

┌─────────────────────────────┐ ⌐710
│   *Receive Nested Arrays*   │
│   │
└─────────────────────────────┘
              ↓   ⌐720
┌─────────────────────────────┐
│   *Process Arrays or*   │
│ *Reconstruct Lists from*   │
│   *the Arrays*   │
└─────────────────────────────┘

FIG. 7